

REMARKS

In the Office Action mailed September 29, 2009, the Examiner required the Applicants to elect single species in different groups (A, B, C, D) for prosecution to which the claims shall be restricted if generic claims are not allowed.

In reply to the Office Action, the Applicants are also filing a Preliminary Amendment to the claims, and Applicants have elected, without traverse, Species A(1), claim 4 and Species D(2), claims 21-24, and, with traverse, species B(1a), claim 6 and Species C(1), claim 10. Applicants reserve the right to reintroduce the non-elected species in a divisional application at a later date, or to rejoiner them upon the allowance of generic claims (namely claims 1 to 3, 9, 25 and 26).

Preliminary Amended claims 4, 6, 10-14, 21-24 are readable on the elected Species, and new claims 27-29 are more specifically readable on the elected Species D(2).

In addition to the above-noted election of Species, Applicants note that minor changes have been made to the amended claims to improve the clarity thereof. The addition of claims 27-29 depending on the elected Species D(2) are discussed further below as well are the traversals of the election requirement of Species B(1a) and C(1).

1. Preliminary Amendments to claims 4, 6, 10-14, 21-24 and the addition of new claims

Elected claims 4, 6, 10-14, 21-24 are amended for wording consistency.

The new claims, namely claims 27-29, depending on claim 21 (Species D(2)) concerning the redox system of the cell electrolyte, recite the further embodiment of the electrolyte comprising a gelifying compound. The support of this addition is to be found on page 4, paragraph [0039] and on page 6, Example 2, paragraph [0062] of the published version of this US Application Serial No. 10/555,179.

The general inventive concept of the invention is a regenerative photoelectrochemical cell wherein compacting compound is co-adsorbed together with the dye on the semi-conductive metal oxide layer of the photoanode, forming a dense mixed self-assembled monolayer. The presence of co-adsorbed compacting compound noticeably improves the efficiency of the photoelectroconversion of said cell (see page 7, Example 4 and Table 2). The addition of gelifying compound into the electrolyte does not induce any adverse effect on the efficiencies of the device and may be useful and helpful for the manufacturing process of said device.

New dependent claims 27-29 recite and concern these latter particular and alternative embodiments of the cell of the invention.

Applicants submit that if any of the elected claims are found to be allowable, new subsequently filed claims 27-29 dependent therefrom should similarly be considered allowable in the same application.

2. Traversal of election of Species B(1) and C(1)-(2)

Addressing item 4 of the Office Action, Applicants elected Species B(1a) as the embodiment for the terminal group of the compacting compound in the cell of the invention.

According to item 10, the Examiner further required election within Species B(1) because the neutral groups (Species B(1a)-(1e)) are regarded as patently distinct or independent species because the claim (claim 6) to these species recites the mutually exclusive characteristics of such species.

Applicants respectfully traverse the Examiner's arguments. First, the Examiner's attention is directed to the construction of claim 6, which recites the technical characteristic of the specific neutral terminal group of the compacting compound and not of the compacting compound as such. Even though a first election of species between the three types of terminal group, namely

neutral, anionic and cationic, is completed as required, the second election within Species B(1) sharing a common characteristic is considered arbitrary. Alkyl, alkenyl, alkynyl, alkoxy or poly-ether chain and branched alkyls, and carbon atoms substituted by several cycloalkyl or phenyl groups of claim 6 actually share the common characteristic of being neutral molecules and uncharged groups (see page 2, paragraph [0018] of US 10/555,179). Said common characteristic of the specific neutral terminal group therefore renders these groups patentably indistinct and should have been considered as one Species.

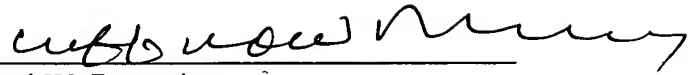
Addressing item 6 of the Office Action, Applicants elected Species C(1) within Element C, but Applicants traverse the Examiner's arguments.

Under item 6, the Examiner considers that there are 27 species within claim 10 concerning the hydrophobic portion of the compacting compound, which are independent or distinct and not obvious variants of each other. Actually, claim 10 concerns a compacting compound selected from the groups of compound having one of the 27 formulae. The limitation to the first formula is arbitrary. In fact, formulae 1 to 4, 6, 9 to 12 share the common characteristic of belonging to the same structural group (alkyl). Moreover, the alkyl group of formula (2) represents an obvious variant of the alkyl group of formula (1) as it is exemplified in the present invention by, at least, the compounds DPA and HDMA (see Examples 1, 4 and 5). Therefore, the election of only one variant is arbitrary and the species within this alkyl group are patentably indistinct and should have been considered as one Species.

The Examiner is kindly requested to take notice of the above-discussed arguments in traverse and reconsider the elections of Species B(1) and Element C for examination.

Having made the required election of Species, a full examination of the elected invention is hereby requested, after entry of the Preliminary Amendment

Respectfully submitted,

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